

receiving from the agent at the server through the internet the identity and address  
of the agent and an indication of the receipt by the agent of the message and the  
10 identification and internet address of the server and the identity [identify] of the sender [and  
the digital signature of the message], and

sending to the sender from the server through the internet a copy of the message  
and the information received by the server from the agent and a digital signature of the  
message received by the server from the agent of the recipient.

86. (Amended) A method as set forth in claim 84 wherein  
the server identifies any attachment to the message and wherein  
the identity of the attachment is received by the server through the internet from the  
agent and wherein

the server sends to the sender through the internet a copy of the attachment  
received from the agent and a digital signature of the attachment.

87. (Amended) A method as set forth in claim 84 wherein  
a digital signature [fingerprint] of the message is provided at the server by a plurality  
of digits in a unique sequence and is sent by the server to the sender.

90. (Amended) A method of transmitting a message through the internet from a sender to a recipient through a server displaced from the recipient, including the steps at the server of:

receiving the message at the server from the sender,

5 transmitting from the server through the internet to an agent of the recipient the message and the identity and internet address of the server and an indication representing the identity of the sender,

receiving at the server from the agent a handshaking and delivery history of the message from the server to the agent, and

10 transmitting from the server to the sender through the internet the message, a digital signature, including a digital signature [fingerprint], of the message and the handshaking and delivery history of the message received by the server from the agent.

91. (Amended) A method as set forth in claim 90 wherein

the server receives from the sender a copy of the information previously sent by the server to the sender, this information including the digital signature and the message, when the sender wishes to have the message authenticated by the server and wherein

5       the server does not retain[s] a copy of the any of the information transmitted from the server to the [digital signature of the message and the handshaking and delivery history of the message, but not a copy of the message unless requested to do so by the] sender, after the server transmits to the sender through the internet the message, the digital signature of the message and the handshaking and delivery history of the message.

92. (Amended) A method as set forth in claim 91 [90] wherein  
the server receives from the sender the information previously transmitted by the  
server to the sender and wherein  
the server uses the information received by the server from the sender to create a  
5 digital signature and compares this digital signature with the digital signature received by  
the server from the sender to authenticate the message received by the server from the  
sender

[the server retains a copy, except for the message, of the information received by  
the server from the agent and sent to the sender and wherein

10 when the sender wishes to authenticate that the message was sent by the server  
to the agent, the server matches the information, except for the message, sent by the  
server to the sender relating to the message with the information retained by the server  
relating to the message].

97. (Amended) A method as set forth in claim 93, including the steps at the server [sender] of:

receiving from the sender at the server through the internet, at the same time as the receipt of a copy of the message from [to] the sender to [agent from] the server, a copy of  
5 any attachment to the message [and a digital signature, including a digital fingerprint, of the attachment], and

providing for a transmittal from the agent to the server through the internet of [the digital signature, including the digital fingerprint, of] the attachment at the same time as the transmittal of the message from the agent to the server.

98. (Amended) In a method of transmitting a message through the internet from a sender to a recipient through a server displaced from the recipient, the steps at the server of:

receiving the message at the server from the recipient [sender],  
5 generating a hash constituting a synopsis of the message in coded form,  
encrypting the hash with a particular encryption code to generate a digital signature [fingerprint] of the message, and

transmitting the message and the digital signature [fingerprint] of the message through the internet to the sender.

99. (Amended) In a method as set forth in claim 98, the steps at the server of:  
generating, for any attachment to the message, a hash constituting a synopsis of the  
attachment in coded form,

encrypting the hash with a particular encryption code to generate a digital signature

5 [fingerprint] of the attachment, and

transmitting the attachment and the digital signature [fingerprint] of the attachment  
to the sender through the internet at the same time that the message and the digital  
signature [fingerprint] of the message are transmitted from the server to the sender through  
the internet.

100. (Amended) In a method as set forth in claim 98, the steps at the server of:  
removing the message and the digital signature of the message from the server after  
the transmission of the message and the digital signature of the message from the server  
to the sender

[transmitting to an agent for the recipient through the internet the identity of the  
sender and the identity and internet address of the server at the same time that the server  
transports to the agent the message through the internet; and

receiving from the agent through the internet, the name of the sender, the name and  
internet address of the server and the identity and internet address of the agent].

101. (Amended) In a method as set forth in claim 99, the steps at the server of:

removing the message and the digital signature of the message from the server after the transmission of the message and the digital signature of the message from the server to the sender, and

5 removing the attachment, and the digital signature of the attachment, from the server after the transmission of the attachment, and the digital signature of the attachment, from the server to the sender

[transmitting to an agent for the recipient through the internet the identity of the sender and the identity and internet address of the server at the same time that the server  
10 transports to the agent the message through the internet;

receiving from the agent through the internet the name of the sender, the name and internet address of the server and the identity and internet address of the agent; and

receiving from the agent through the internet the digital fingerprint of the attachment at the same time that the server receives the digital fingerprint of the message through the  
15 internet].

102. (Amended) In a method as set forth in claim 98 [100], the step at the server  
of:

receiving at the server from the sender the message, and the digital signature of the  
message, previously transmitted from the server to the sender

5 [storing at the server the digital fingerprint of the message, the name of the sender,  
the identity and internet address of the server and the identity and internet address of the  
agent, and

transmitting to the sender for storage by the sender the digital fingerprint of the  
message, the name of the sender, the identity and internet address of the server and the  
10 identity and internet address of the agent].



103. (Amended) In a method as set forth in claim 101, the step[s] of:

authenticating the message on the basis of the message, and the digital signature  
of the message, transmitted from the sender to the server

[storing at the server a digital fingerprint of the message, the name of the sender,  
5 the identity and internet address of the server and the identity and internet address of the  
agent,

transmitting at the server to the sender for storage by the sender a digital signature  
[fingerprint] of the message, the name of the sender, the identity and internet address of  
the server and the identity and internet address of the agent,

10 storing at the server a digital fingerprint of the attachment, and

transmitting at the server through the internet to the sender, for storage by the  
sender, the digital signature of the attachment, as received by the server from the agent,  
at the same time that the server transmits to the sender through the internet the digital  
fingerprint of the message and the identity of the sender and the identity and e-mail  
15 address of the server and the identity and internet address of the agent, all as received by  
the server from the agent].

104. (Amended) In a method as set forth in claim 102, the step of:

authenticating at the server the message received by the server from the sender on the basis of the message, and the digital signature of the message, transmitted from the sender to the server, the authentication being provided by generating the digital signature of the message received by the server from the sender and by comparing the generated digital signature and the received digital signature

[sending at the server to the sender through the internet the message received by the server from the sender with an appendage of the digital fingerprint of the message for storage by the sender].

105. (Amended) In a method as set forth in claim 103, the step of:

authenticating at the server the message received by the server from the sender on the basis of the message, and the digital signature of the message, transmitted from the sender to the server, the authentication being provided by generating the digital signature of the message received by the server from the sender and by comparing the generated digital signature and the received digital signature and by indicating the authentication when the generated digital signature and the received digital signature are the same.

[sending at the server to the sender through the internet the message received by the server from the sender with an appendage of the digital fingerprint of the message for storage by the sender].

106. (Amended) In a method of transmitting a message through the internet from a sender to an agent for the recipient through a server displaced from the agent, the steps at the server of:

receiving the message at the server from the sender,

5 [generating a hash constituting a synopsis of the message of the message in encoded form,

[encrypting the hash with a particular encryption code to generate a digital fingerprint of the message,]

10 transmitting the message and the identity of the sender and the identity and internet address of the server through the internet from the server to the agent,

receiving at the server through the internet any transmission through the internet from the agent concerning the message from the sender, and

15 determining from the transmission received by the server from the agent, or from the lack of any reception by the server through the internet from the agent [mail transport authority], the delivery status of the transmission by the server to the agent and the delivery status of any delivery of the message by the agent to the recipient.

107. (Amended) In a method as set forth in claim 106, the steps at the server of:  
periodically examining the delivery status of the message transmitted to the agent  
and the [delivery] status of any delivery of the message by the agent to the recipient, and  
transmitting the message and the digital signature [fingerprint] of the message and  
5 the identity of the sender and the identity and internet address of the server through the  
internet to the sender with an indication of the delivery of the message to the agent when  
the server determines from the periodic examination that the message has been delivered  
to the [said] transport agent.

108. (Amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of:

receiving the message at the server,

5 [providing a digital signature of the message,]

transmitting through the internet to an agent of the recipient the message and the identity of the sender and the identity and the internet address of the server,

receiving from the agent the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server,

10 [and]

providing a digital signature of what was received from the agent, and

providing to the sender the information received by the server from the agent and the digital signature [fingerprint] of the information received by the server [message].

109. (Amended) A method as set forth in claim 108, including the steps at the server of:

providing to the sender the message at the same time as the provision of the digital signature [fingerprint] of the message to the sender, and

5 [retaining the information provided to the sender but] discarding the message provided to the sender.

110. (Amended) A method as set forth in claim 108, including the steps at the server of:

receiving from the agent [providing] an indication of the date and time of the reception by the agent of the identity and internet address of the agent and the identity of the sender and the identity and the internet address of the server [from the agent], and

providing to the sender the indication of the date and time of the reception by the agent of the [digital fingerprint from the agent] identity and internet address of the agent and the identity of the sender and the identity and internet address of the server.

111. (Amended) A method as set forth in claim 108, including the steps at the server of:

receiving from the sender a copy of the message provided by the server and a copy of the digital signature of the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server, [and]

[comparing the digital fingerprint of the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server, all as received from the sender, and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the recipient, all as provided by the server, and the digital signature of the message at the server,] and

generating a digital signature of what has been received from the sender,

comparing the digital signature received by the sender and the digital signature generated by the server, and

authenticating the message received from the sender on the basis of the comparison provided at the server.

112. (Amended) A method as set forth in claim 108, including the steps at the server of:

forming at the server the digital signature [fingerprint] of the message by providing a hash of the message and then

encrypting the hash of the message.

113. (Amended) A method as set forth in claim 108, including the steps at the server of:

providing a digital signature [fingerprint] of an attachment to the message,

transmitting to the agent the attachment at the same time as the transmittal of the

10 message, and

transmitting to the sender the digital signature [fingerprint] of the attachment at the same time as the transmission of the digital signature [fingerprint] of the message to the sender.



114. (Amended) A method as set forth in claim 112, including the steps at the server of:

providing an indication of the date and time of the reception of the message from the agent, and

5 providing to the sender the indication of the date and time of providing to the server the digital signature [fingerprint] of the message from the agent at the time of providing to the sender the digital signature [fingerprint] of the message,

providing to the sender the message at the same time as the provision of the digital signature [fingerprint] of the message to the sender, and

10 [retaining the information provided to the sender but] discarding the message provided to the sender,

providing a digital signature [fingerprint] of an attachment to the message,

transmitting to the sender [agent] the attachment at the same time as the transmittal of the message to the sender,

15 transmitting to the sender the digital signature [fingerprint] of the attachment at the same time as the transmission of the digital signature [fingerprint] of the message to the sender,

receiving from the sender a copy of the message provided to the sender and a copy of the digital signature of the message and the identity and internet address of the agent  
20 and the identity of the sender and the identity and internet address of the server,

[comparing the digital signature of the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server, all as received from the sender, and the digital signature of the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the recipient, all as provided by the server, and]

generating a digital signature of what has been received from the sender relating to the message,

comparing the digital signature received from the sender and the digital signature generated on the basis of what has been received from the sender relating to the message, and

authenticating the message received from the sender on the basis of the comparison provided by the server.

115. (Amended) In a method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the recipient, the steps at the server of:

receiving the message from the agent,

5        providing at the server a digital signature [fingerprint] of the message received from the agent,

[storing at the server the digital signature of the message,] and

transmitting to the sender the message received from the agent and the digital signature [fingerprint] of the message for storage by the sender.

116. (Amended) In a method as set forth in claim 115, the step at the server of:  
discarding the message after the transmission of the message and the digital signature [fingerprint] of the message to the sender.

117. (Amended) In a method as set forth in claim 116 the steps at the server of:  
receiving from the sender copies of the message and the digital signature  
[fingerprint] of the message,

generating a digital signature on the basis of what has been received from the  
5 sender.

comparing the digital signature [fingerprint] of the message from the sender and the  
[stored] digital signature generated at the server [fingerprint of the message,] and  
authenticating the message on the basis of the results of the comparison.

118. (Amended) In a method as set forth in claim 115,  
10 providing at the server, at the same time as the provision of the digital signature  
[fingerprint] of the message at the server, the identity of the sender and the identity and  
internet address of the server and the identity [address] and internet address of the mail  
transport agency, all as received by the server from the agent,

[storing at the server the information received by the server from the agent,] and  
15 transmitting to the sender the identity of the sender, the identity and internet address  
of the server and the identity and internet address of the agent, all as received by the  
server from the agent, at the same time as the transmission of the message, and the digital  
signature [fingerprint] of the message, to the sender.

119. In a method as set forth in claim 115, the steps at the server of:

20 receiving an attachment from the agent,

providing at the server a digital signature of the attachment,

[storing at the server the digital fingerprint of the attachment of the message,] and

transmitting to the sender, at the same time as the transmission of the message and

the digital signature of the message, the attachment and the digital signature [fingerprint]

25 of the attachment [as received by the server].

120. (Amended) In a method as set forth in claim 119, the steps at the server of:

receiving from the sender copies of the message and the attachment of the  
message, [and the digital fingerprint of the message and the attachment, and]

generating digital signatures of the message and the attachment from the message  
5 and the attachment received by the server from the sender, and

respectively comparing the received digital signatures [fingerprint] of the message  
and the attachment and the digital signatures generated at the server of the message and  
the attachment on the basis of what has been received from the sender [stored digital  
signatures of the message and the attachment] to authenticate the message and the  
10 attachment on the basis of this comparison.

121. (Amended) In a method as set forth in claim 119, the steps at the server of  
receiving [storing] at the server from the agent, at the same time as the reception  
[provision of the digital fingerprints] of the message and the attachment of the message  
from the agent [at the server], the identity of the sender and the identity and internet  
5 address of the server and the identity [address] and internet address of the agent, all as  
received by the server from the agent,

transmitting to the sender the identity of the sender, the identity and internet address  
of the server, [the identity of the sender,] and the identity and internet address of the agent,  
all as received by the server from the agent, at the same time as the transmission to the  
10 sender of the message and the attachment and the digital signature [fingerprint] of the  
message and of the attachment to the sender.

122. (Amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps of

15 providing the message from the sender at the server,

[providing at the server a digital signature of the message and the identity of the sender and the identity and internet address of the server,]

transmitting to the agent the message and the identity of the sender and the identity and the internet address of the server,

20 providing at the agent an indication of the status of the reception at the agent of the transmittal from the server to the agent of the message and the identity of the sender and the identity and internet [interest] address of the server, [and]

transmitting to the server from the agent the message and the identity and internet address of the agent and the status of the reception at the agent of the message and the  
25 identity of the sender and the identity and internet address of the server[.], and

providing at the server a digital signature of what has been received by the server from the agent.

123. (Amended) A method as set forth in claim 122, including the steps of:

providing an attachment to the message,

[providing at the server a digital signature of an attachment to the message,]

transmitting the attachment to the agent at the same time as the transmittal of the

5 message to the agent,

providing at the agent the status of the reception of the attachment at the same time  
as the provision at the agent of the status of the reception of the message, [and]

transmitting to the server from the agent the status of the reception of the  
attachment at the same time as the transmittal to the server from the agent of the status

10 of the reception of the message, and[.]

providing at the server a digital signature of the attachment.

124. (Amended) A method as set forth in claim 122 wherein

the digital signature [fingerprint] of the message includes a digital digest of the  
message and an encryption of the digital digest.



126. (Amended) A method as set forth in claim 122 wherein

the server transmits to the sender the message and [the digital fingerprint of the message and] the identity of the sender and the identity and internet address of the server and the identity and internet address of the agent and the status at the agent of the reception at the agent of the message and the digital signature of what has been received by the server from the agent.

128. (Amended) A method as set forth in claim 122 wherein

the digital signature [fingerprint] of the message includes a digital digest of the message and an encryption of the digital digest,

the agent includes the date and time of the transmission by the agent to the server,

and

the server transmits to the sender the message and the digital signature [fingerprint] of the message and the identity of the sender and the identity and internet address of the server and the identity and internet address of the agent and the delivery status [at the agent of the reception at the agent] of the message [and the digital fingerprint of the message], and

the delivery status of the message at the agent includes at least one of the following:

(a) DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR DELIVERY STATUS NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and (e) FAILED, UNDELIVERABLE.

15           129. (Amended) A method as set forth in claim 128, including the steps of:  
              providing at the server [a digital fingerprint of] an attachment to the message,  
              transmitting the attachment to the message to the agent at the same time as the  
transmittal of the message to the agent,  
              providing at the agent the status of the reception of the attachment at the same time  
20       as the provision at the agent of the status of the reception of the message, and  
              transmitting to the server from the agent the status of the reception of the  
attachment at the same time as the transmittal to the server from the agent of the status  
of the reception of the message.

130. (Amended) A method of transmitting a message through the internet from a  
25 sender to an agent for a recipient through a server displaced from the agent, including the  
steps at the server of:

providing at the server [a digital fingerprint of] the message and the identity of the  
sender and the identity and internet address of the server,

transmitting to the agent the message and the identity of the sender and the identity  
30 and internet address of the server,

receiving from the agent the message and the identity of the sender and the identity  
and internet address of the server and the identity and internet address of the agent and  
an indication of the status of the reception of the message at the agent, and

transmitting to the sender the message and the information received by the server  
35 from the agent relating to the message.

131. (Amended) A method as set forth in claim 130, including the steps at the server of:

[providing at the server a digital signature of an attachment to the message,]

transmitting to the agent an [the] attachment at the same time that the message is

5 transmitted [transported] to the agent,

receiving from the agent the status of the reception at the agent of the attachment at the same time that the server receives from the agent the status of the reception at the agent of the message, and

10 transmitting to the sender the attachment and the information received by the server from the agent relating to the attachment at the same time that the server transmits to the sender the message and the information received by the server from the agent relating to the message.

134. (Amended) A method as set forth in claim 133 wherein

the server also transmits to the sender the date and time of the transmission to the sender of the status of the reception by the agent of the attachment [message].

136. (Amended) A method as set forth in claim 134 wherein  
the server transmits to the sender the identity of the sender and the identity and  
internet address of the server at the same time that it transmits the message [and the  
digital fingerprint of the message] to the sender and wherein

5        the server authenticates the message on the basis of what it has received from the  
sender

[the server stores the identity of the sender and the identity and the internet address  
of the server and the digital fingerprint of the message and wherein

10        the server compares the stored identity of the sender and the identity and the  
internet address of the server, all as stored by the server, and the identity of the sender  
and the identity and the internet address of the server, all as received by the sender, to  
authenticate the message transmitted from the server to the sender].

137. (Amended) A method as set forth in claim 134 wherein

the server transmits to the sender the identity and internet address of the agent and the status of the reception of the message, all as received by the server from the agent, and the digital signature [fingerprint] of the message and wherein

5        the sender sends to the server, at the time that the sender wishes to have the message authenticated, what it has received from the sender and wherein

the server authenticates the message on the basis of what it has received from the sender after the sender wishes to have the message authenticated.

[the server stores the identity and internet address of the agent and the status of the  
10 reception of the message received by the agent, all as received by the server from the agent and the digital signature of the message, and wherein

the server compares the stored identity and internet address of the agent and the status of the reception of the message and the digital signature of the message with the identity and internet address of the agent and the status of the reception of the message  
15 and the digital signature of the message all as received by the sender from the server, to authenticate the message transmitted from the server to the sender.]

138. (Amended) A method as set forth in claim 136 wherein  
the server does not store the message after it transmits the message to the sender  
and wherein

the server transmits to the sender the message and the identity and internet address  
5 of the agent and the status of the reception of the message received by the agent, all as  
received by the server from the agent, and the digital signature [fingerprint] of the  
message, and wherein

the server authenticates the message solely on the basis of what it has received  
from the sender after the sender desires to authenticate the message.

10 [the server stores the identity and internet address of the agent and the status of the  
reception of the message and the digital signature of the message received by the agent,  
all as received by the server from the agent, and the digital signature of the message and  
wherein

the server compares the stored identity and internet address of the agent and the  
15 status of the reception of the message and the digital signature of the message with the  
identity and internet address of the agent and the status of the reception of the message  
and the digital signature of the message, all as received by the sender from the server, to  
authenticate the message transmitted from the sender to the server.]

139. (Amended) A method of authenticating a message transmitted through the internet from a sender to a recipient through a server displaced from the recipient, including the steps at the server of:

transmitting to the sender the message and a digital signature [fingerprint] of the message, and a status of the reception of the message by an agent for the recipient,

[storing the digital signature of the message at the server and the status of the reception of the message by the agent,]

receiving from the sender the message, the digital signature [fingerprint] of the message and the status of the reception of the message by the agent, [and]

producing a digital signature of the information received from the sender, and

comparing the [stored] digital signature [fingerprint] of the message produced from the information received from the sender and the digital signature [fingerprint] of the message generated [as received] by the server from the sender to authenticate the message transmitted from the sender [server] to the server [sender].



140. (Amended) A method as set forth in claim 139 wherein  
the server does not store the information, including the message, transmitted from  
the server to the sender after the server transmits the information to the sender.

[the server stores the information transmitted by the server relating to the status of  
5 the reception of the message and the digital signature of the message but does not store  
the message and wherein

the server compares the information stored by the server, and the information  
provided by the sender, relating to the status of the reception by the agent of the message,  
and the digital signature of the message, to authenticate the message transmitted by the  
10 server to the sender.]

141. (Amended) A method as set forth in claim 139 wherein  
the server provides, in determining the digital signature, the identity of the sender  
and the identity and the internet address of the server, and wherein

the server transmits to the sender the identity of the sender and the identity and  
5 internet address of the server, all as transmitted by the agent to the server and wherein  
the server receives from the sender the identity and internet address of the server  
and wherein

[the server stores the identity of the sender and the identity and internet address of  
the server, all as transmitted by the agent to the server and wherein]

10 the server includes the identity of the sender and the identity and internet address  
of the server in producing the digital signature of the information from the sender and  
wherein

the server compares the digital signature from the sender and the digital signature  
generated by the server from the information received by the server from the sender  
15 [information stored by the server, and the information provided by the sender, relating to  
the identity of the sender and the identity and information address of the server] to  
authenticate the message transmitted by the sender [server] to the server [sender].

142. (Amended) A method of authenticating a message transmitted through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps of:

transmitting to the sender the message and a digital signature [fingerprint] of the message and a status of a reception by an agent for the recipient of the message,

receiving at the server the information transmitted by the sender to the server,

generating a digital signature of the information received by the server,

[storing the digital signature of the message at the server,] and

comparing the [stored] digital signature [fingerprint] generated by the server from the information received by the server from the sender [of the message] and the digital signature [fingerprint] of the message transmitted by [to] the sender to the server to authenticate the message transmitted from the sender [server] to the server [sender].

144. (Amended) A method as set forth in claim 142 wherein

the server transmits to the sender the identity of the sender and the identity and internet address of the server at the same time that it transmits the message and the digital signature [fingerprint] of the message to the sender and wherein

5        the sender transmits to the server the identity of the sender and the identity and the internet address of the server at the same time that it transmits the message and the digital signature of the message to the server

[the server stores the identity of the sender and the identity and the internet address of the server at the same time that it transmits the message and the digital signature of the message to the sender] and wherein

10        the server authenticates the message on the basis of the information that it receives from the sender [receives from the sender the identity of the sender and the identity and internet address of the server and wherein

15        the server compares the identity of the sender and the identity and the internet address of the server, all as received by the server from the sender, with the stored identity of the sender and the stored internet address of the server to authenticate the message transmitted from the server to the sender].

145. (Amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of,

receiving the message from the sender,

5 transmitting to the agent the message and a [fictitious] return address identifying [the message,] the sender and the recipient,

receiving from the agent [the fictitious return address identifying] the message and the identity of[,] the sender and the recipient, and

10 identifying the message transmitted from the server to the agent and received by the server from the agent and identifying the message, the sender and the recipient.

146. (Amended) A method as set forth in claim 145 wherein

the server transmits to the sender [the fictitious return address received by the server from the agent and identifying] the message[,] and the identity of the sender and the recipient [for return by the sender] and wherein

5 the server receives from the sender [stores] the [fictitious return address received by the server from the agent and identifying the] message[,] and the identity of the sender and the recipient and wherein[.]

the server authenticates the message on the basis of information transmitted by the sender to the server after the receipt of the information by the server from the agent.

147. (Amended) A method as set forth in claim 146 wherein

[the server transmits the message to the sender at the time that it transmits to the sender the fictitious return address received by the server from the agent and identifying the message, the sender and the recipient and wherein]

5 the server does not retain the message after it transmits the message to the sender.

148. (Amended) A method as set forth in claim 145 wherein

the recipient is one of a plurality of recipients receiving the message from the server and wherein

5 the [fictitious] return address identifies the recipient from among the recipients in the plurality [group].

149. (Amended) A method as set forth in claim 145 wherein

the message has an attachment and wherein

the [fictitious] return address also identifies the attachment to the message.

150. (Amended) A method as set forth in claim 146 wherein

5 [the server transmits the message to the sender at the time that it transmits to the sender the fictitious return address received by the server from the agent and identifying the message, the sender and the recipient and wherein]

the server does not retain the message after it transmits the message to the sender and wherein

10 the recipient is one of a plurality of recipients receiving the message from the server and wherein

the [fictitious] return address identifies the recipient from among the recipients in the plurality [group] and wherein

the message has an attachment and wherein

15 the [fictitious] return address also identifies the attachment to the message.

151. (Amended) In a method of identifying a sender's message transmitted from a server to an agent for a recipient, the steps at the server of:

transmitting to the sender a [fictitious] return address received by the server from the agent and identifying the message, the sender and the recipient [receiver],

5 [storing in the server the fictitious return address transmitted by the server to the sender, and]

receiving from the sender the [fictitious] return address transmitted by the server to the sender and identifying the message, the sender and the recipient, and

authenticating the message on the basis of the information transmitted by the  
10 sender to the server

[comparing the fictitious return address provided by the sender and the fictitious return address stored in the server to authenticate the message provided by the sender].

152. (Amended) In a method as set forth in claim 151 wherein[,]

the server transmits to the sender the message at the same time that it transmits the [fictitious] return address to the sender and wherein

the server does not retain the message after it transmits the message to the sender.



5           153. (Amended) In a method as set forth in claim 151 wherein[,]  
the recipient is an individual one of a plurality of recipients receiving the message  
from the server and wherein  
the [fictitious] return address identifies the individual one of the recipients in the  
plurality [group] receiving the message.

154. (Amended) In a method as set forth in claim 151 wherein  
the message has an attachment and wherein  
the [fictitious] return address identifies the attachment to the message.

155. (Amended) In a method as set forth in claim 152 wherein  
the recipient is an individual one of a plurality of recipients receiving the message  
from the server and wherein  
the [fictitious] return address identifies the individual one of the recipients in the  
5   plurality [group] receiving the message and wherein  
the message has an attachment and wherein  
the [fictitious] return address identifies the attachment to the message.

156. (Amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the recipient, including the steps at the agent of:

receiving from the server through [though] the internet the message [and a digital fingerprint, of the message] and the identity of the sender and the identity [name] and internet address of the server, and

providing for a transmittal to the server through the internet the [digital fingerprint of the] message and the identity of the sender and the identity [name] and internet address of the sender [internet] and the identity [name] and internet address of the agent.

157. (Amended) A method as set forth in claim 156, including the step at the agent of:

indicating in the transmittal from the agent to the server [internet] whether or not the message has been delivered by the agent to the recipient.

158. (Amended) A method as set forth in claim 156, including the step at the agent of:

indicating in the transmittal from the agent to the server [internet] that the message and [the digital signature, of the message and] the identity of the sender and the identity [name] and internet address of the server have been sent by the agent to another agent for delivery to the recipient.

159. (Amended) A method of providing a delivery at a first server of an electronic message from the first server to a destination address, including the steps of:

receiving at the first server an electronic message from a message sender for routing to the destination address,

5 transmitting the electronic message from the first server to a destination server for the destination address [and transactions between the first server and the destination server receiving the message] via a protocol selected from a group consisting of an SMTP and an ESMTP protocol, and

10 recording at the first server the transactions between the first server and the destination server<sup>9</sup> in the selected one of the protocols.

160. (Amended) A method as set forth in claim 159, including the steps of:

including in the transactions between the first server and the destination server via the selected protocol the identity of the sender, the identity and internet address of the first server and the identity and internet address of the destination server.

161. (Amended) A method as set forth in claim 159, including the steps of:

providing transactions between the first server and the sender,

including, in the transactions between the first server and the sender, a digital signature [fingerprint] of the transmission of the electronic message between the first  
5 server and the destination server via the selected protocol [from the message sender].

162. (Amended) A method as set forth in claim 159, including the step of:

recording, in the transactions between the first server and the destination server via the selected protocol, the time for the sending of the message from the first server to the destination server and the time for the receipt of the message by the destination server.

10 163. (Amended) A method as set forth in claim 160, including the steps of:

providing transactions between the first server and the sender, and

including, in the transactions between the first server and the sender[,] a digital signature [fingerprint] of the transmission of the electronic message between the first server and the destination server via the selected protocol [from the sender], and

15 recording, in the transactions between the first server and the destination server[,] via the selected protocol the time for the sending of the message from the first server to the destination server and the time for the receipt of the message by the destination server.

164. (Amended) A method as set forth in claim 159, including the step of:

including in the transactions between the first server and the destination server via the selected protocol the status of the delivery of the message to [from] the destination server from [to] the recipient.

165. (Amended) A method as set forth in claim 159, including the step of:  
receiving at the first server a [delivery status] notification relating to the status of the  
delivery of the message to the destination server via the selected protocol and the delivery  
of the message from the destination server to the recipient via the selected protocol.

166. (Amended) In a method of verifying at a first server a delivery of an electronic  
message to a destination server for a recipient, the steps of:

transmitting the electronic message from the first server to the destination server  
through a transaction between the first server and the destination server via a protocol  
5 selected from the group consisting of an SMTP protocol and an ESMTP protocol,

[recording at the first server the transactions between the first server and the  
destination server in the selected one of the protocols,] and

transmitting from the first server to the sender the message and the transactions  
between the first server and the destination server in the selected one of the protocols.

168. (Amended) In a method as set forth in claim 166, the step of:  
releasing [destroying] the message at the first server after the transmission of the  
[copy of the] message in the selected one of the protocols by the first server to the  
destination server.

169. (Amended) In a method as set forth in claim 166, the steps of:

providing [recording] at the first server a digital signature [fingerprint] of the message, and

transmitting the digital signature [fingerprint] of the message from the first server to  
5 the sender at the time of the transmission of the transaction in the selected one of the protocols from the first server to the sender.

170. (Amended) In a method as set forth in claim 169, the steps of:

transmitting from the first server to the sender a copy of the message at the time of the transmission of the transaction between [of] the first server and the destination server in the selected one of the protocols, and

5 releasing [destroying] the message at the first server after the transmission of the copy of the message in the selected one of the protocols by the first server to the destination server.

171. (Amended) In a method as set forth in claim 170, the step of:

transmitting between the first server and the destination server the identity [name] of the sender, the identity [name] and address of the first server and the identity [name] and address of the destination server and the time of the receipt of the message by the first  
5 server at the time of the transmission of the message from the first server to the sender.

173. (Amended) In a method of verifying at a first server a message received by the first server from a sender and transmitted by the first server to a destination server for a recipient, the steps of:

receiving [recording] at the first server from the sender transactions between the first  
5 server and the destination server relating to the message from the sender, the transactions between the first server and the destination server being provided via a protocol selected from the group consisting of an [a] SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the message and the transactions between the first server and the destination server via the selected one of the SMTP  
10 protocol and the ESMTP protocol, [and]

transmitting from the sender to the first server the message and the transactions in the selected one of the protocols, and

authenticating the message on the basis of the message and the transactions transmitted from the sender to the first server in the selected one of the protocols

15 [comparing at the first server the recorded transactions and the transactions previously transmitted from the first server to the sender and subsequently provided by the sender to the first server, thereby to authenticate the message transmitted by the first server to the sender when there is a correspondence in the comparison].

174. (Amended) In a method as set forth in claim 173, the step of:

authenticating the message transmitted from the sender to the first server when the  
comparison is available

[transmitting with the message from the first server to the sender a digital signature  
5 of the message at the same time that the first server transmits to the sender the  
transactions between the first server and the destination server via the selected one of the  
SMTP protocol and the ESMTP protocol].

175. (Amended) In a method as set forth in claim 170, the step of:

removing the message from the first server when the first server transmits to the  
sender the message and the transactions between the first server and the destination  
server via the selected one of the SMTP protocol and the ESMTP protocol.



176. (Amended) In a method as set forth in claim 173, the steps of:

receiving [recording] at the first server the indication of the identity [name] of the sender, the identity [name] and address of the first server and the identity [name] and address of the destination server [at the time of the recording at the first server of the transactions between the first server and the destination server] via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol, and

transmitting from the first server to the sender the identity [name] of the sender, the identity [name] and address of the first server and the identity [name] and address of the destination server at the time of the transmission from the first server to the sender [destination server] of the message and the transaction between the first server and the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol[.]

[the comparison at the first server including a comparison of the name of the sender, the name and address of the first server and the name and address of the destination server as received by the first server from the sender and as recorded by the first server].

177. (Amended) In a method as set forth in claim 175, the steps of  
providing [recording] at the first server a [the] digital signature [fingerprint] of the  
message and the transactions between the first server and the destination server relating  
to the message from the sender, the transactions between the first server and the  
destination server being provided via a protocol selected from the group consisting of an  
SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the message and the digital signature  
of the message and the transactions between the first server and the destination server  
via the selected one of the SMTP protocol and the ESMTP protocol,

transmitting the message from the first server to the sender and the [a] digital  
signature [fingerprint] of the message at the same time that the first server transmits to the  
sender the transactions between the first server and the destination server via the selected  
one of the SMTP protocol and the ESMTP protocol[, and]

[comparing at the first server the recorded digital signatures and recorded  
transactions with the digital signature and the transactions previously transmitted from the  
first server to the sender and subsequently provided by the sender to the first server,  
thereby to authenticate the message transmitted by the first server to the sender when  
there is an correspondence in the comparison].

178. (Amended) In a method as set forth in claim 173, the steps of:

[recording at the first server an indication of the identity of the sender, the identity and the address of the first server and the identity and address of the destination server at the same time that the transactions between the first server and the destination address are recorded at the first server,]

transmitting from the first server to the sender the identity of the sender, the identity and address of the first server and the identity and address of the destination server at the time that the message and the transactions between the first server and the destination server are transmitted from the first server to the sender, [ and]

transmitting from the sender to the first server the information transmitted from the first server to the sender, and

[comparing at the first server the identity of the sender, the identity and address of the first server and the identity and address of the destination server, all as transmitted to the sender and as recorded in the first server, at the same time that the other comparisons are made, thereby to authenticate the message transmitted by the first server to the sender when there is a correspondence in the comparison.]

authenticating the message at the first server on the basis of the information transmitted from the sender to the first server and representing the information previously transmitted from the first server to the sender.

179. (Amended) A method of verifying delivery at a first server of an electronic message to a destination server for a recipient, including the steps of:

receiving at the first server an electronic message from a message sender for routing to the destination server,

5 establishing at the first server a communication with the destination server,

transmitting from the first server the electronic message to the destination server with a protocol transaction via a protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol,

10 recording at the first server the protocol transactions between the first server and the destination server relating to the message,

transmitting from the first server to the sender the message and the protocol transactions between the first server and the destination server,

transmitting from the sender to the first server the message and the protocol transaction previously transmitted from the first server to the sender, and

15 authenticating the message at the first server on the basis of the message and the protocol transactions transmitted from the sender to the first server

[providing at the first server a comparison of at least a particular portion of the transactions in the selected one of the protocols as proof of delivery of the message by the first server to the destination server, the comparison being provided between the transaction protocol recorded at the first server and the transaction protocol received by  
20 the sender from the server].

180. (Amended) A method as set forth in claim 178 wherein  
the message and the at least particular portion of the transactions provided in the  
selected one of the protocols [protocol] to the sender are [is] thereafter provided by the  
25 sender to the first server, and

the message is authenticated by the first server on the basis of the message and  
the at least particular portion of the transactions from the sender to the first server

[the at least particular portion provided in the selected protocol by the sender to the  
first server is compared in the first server with the at least particular portion recorded in the  
30 selected protocol at the first server to determine whether the message received by the  
sender is authentic].

181. (Amended) A method as set forth in claim 178 wherein  
a digital signature [fingerprint] is made of the message at the first server and wherein  
[the digital fingerprint is recorded at the first server with the protocol transactions and  
wherein]

5 the digital signature [fingerprint] is transmitted from the first server to the sender with  
the message and the protocol transactions between the first server and the destination  
server and wherein

the digital signature [fingerprint] is thereafter provided by the sender to the first  
server with the at least particular portion of the transactions in the selected protocol.

182. (Amended) A method as set forth in claim 180 wherein  
the message and the digital signature [fingerprint] and the at least particular portion  
of the transactions provided in the selected protocol to the sender are thereafter provided  
by the sender to the first server and wherein

5        a digital signature is produced at the first server on the basis of the message [digital  
fingerprint] and the at least particular portion provided in the selected protocol by the  
sender to the first server and wherein [are compared in the first server with the digital  
signature and the at least particular portion recorded in the selected protocol at the first  
server to determine whether the message received by the sender is authentic.]

10        the message is authenticated at the first server by establishing an identity between  
the digital signature produced at the first server and the digital signature received by the  
first server from the sender.

183. (Amended) A method of verifying at a first server the delivery of an electronic message from the first server to a destination server for a destination address including the steps of:

receiving at the first server an electronic message from a message sender for  
5 routing to the destination server,

transmitting from the first server to the destination server for the destination address the electronic message and transactions between the first server and the destination server relating to the electronic message via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

10 recording at the first server the transactions between the first server and the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol,

transmitting from the first server to the sender the message and the transactions between the first server and the destination server in the selected one of the protocols,  
15 [and]

receiving at the first server from the sender the messages an the transactions between the first server and the destination server in the selected one of the protocols, and authenticating the message at the first server on the basis of the message received by the first server from the sender and the transactions received by the first server from the  
20 sender

[comparing at the first server the recorded transactions and the transactions previously transmitted from the first server to the sender and subsequently provided by the sender to the first server, thereby to authenticate the message transmitted by the first server to the sender when there is an identity in the comparison].

**PLEASE ADD THE FOLLOWING CLAIMS:**

sub  
E-1  
184. A method as set forth in claim 122, including the step of:  
transmitting from the server to the sender what has been received at the server from  
the agent and the digital signature of what has been received by the server from the agent.

3  
185. A method as set forth in claim 184, including the step of:  
transmitting to the server from the sender what has been received at the sender  
from the server, this transmission occurring when the sender wishes to authenticate the  
message, and  
5 authenticating the message at the server on the basis of what has been transmitted  
from the sender to the server at the time that the sender wishes to authenticate the  
message.



186. A method as set forth in claim 137 wherein  
the server provides a digital signature on the basis of what it has received from the  
sender after the sender wishes to have the message authenticated and wherein  
the server compares the digital signature that it has received from the sender and  
the digital signature that it has created from the information received from the sender and  
wherein  
the server authenticates the message when the comparison is favorable.

187. A method as set forth in claim 163, including the steps of:  
transmitting from the sender to the first server the information transmitted from the  
first server to the sender,  
authenticating the electronic message on the basis of the information transmitted  
from the sender to the first server representing the transactions between the first server  
and the destination address via the selected protocol.

188. A method as set forth in claim 163, the steps of:  
providing a digital signature of the message and the transactions between the first  
server and the destination server via the selected protocol, and  
transmitting the digital signature of the message from the first server to the sender  
at the same time that the message and the transactions between the first server and the  
destination server are transmitted from the first server to the sender.

189. A method as set forth in claim 172, the steps of:

generating at the first server a digital signature solely on the basis of the message  
and the transactions transmitted from the sender to the first server, and

comparing at the first server the digital signature transmitted from the sender to the  
5 first server and the digital signature generated at the first server on the basis of the  
transmission from the sender to authenticate the message transmitted from the sender to  
the first server.

190. A method as set forth in claim 173, including the steps of:

providing a digital signature of the message and the transactions between the first  
server and the destination server via the selected protocol, and

transmitting the digital signature from the first server to the sender at the same time  
5 as the transmission from the first server to the sender of the message and the transactions  
via the selected protocol.

191. A method as set forth in claim 189, the steps of:

transmitting from the sender to the first server the digital signature of the message  
at the same time as the transmission from the sender to the first server of the message  
and the transactions between the first server and the destination server in the selected one  
5 of the protocols, and

authenticating the message on the basis of the digital signature and the message  
and the transactions transmitted between the sender and the first server in the selected  
one of the protocols.

192. A method of authenticating a message transmitted through the internet from  
a sender to a recipient, including the steps at the server of:

providing a digital signature of the message,

transmitting the message and the digital signature to the sender,

5 receiving the message and the digital signature from the sender, and

authenticating the message on the basis of the message and the digital signature  
received by the server from the sender.

*E' 230/221*  
193. A method as set forth in claim 192, wherein

the server prepares a digital signature of the message and an identification of the sender and an identification and address of the server and an identification and address of the recipient and wherein

*B'*  
5 the server transmits to the sender the message and the digital signature of the message and the identification of the sender and the identification and address of the server and the identification and address of the recipient and wherein

the server receives the message and the digital signature from the sender and wherein

10 the server authenticates the message on the basis of the message and the digital signature received by the server from the sender.

194. A method as set forth in claim 192 wherein  
the server prepares a digital signature of the message and a selected one of the  
SMTP and ESMTP protocols involved in the transmission of the message from the server  
to the recipient and wherein

5 the server transmits to the sender the message and the digital signature of the  
message and the selected one of the SMTP and ESMTP protocols and wherein

the server receives the message and the digital signature from the sender and  
wherein

10 the server authenticates the message on the basis of the message and the digital  
signature received by the server from the sender.

195. A method as set forth in claim 192 wherein

the server authenticates the message by preparing a digital signature of the  
message and by comparing the prepared digital signature and the received digital  
signature and confirming that they are identical.

196. A method as set forth in claim 192 wherein

the server authenticates the message by preparing a digital signature of the  
message and the identification of the sender and the identification and address of the  
server and the identification and address of the recipient and by comparing the prepared  
digital signature and the received digital signature and confirming that they are identical.

197. A method as set forth in claim 194 wherein  
the server authenticates the message by preparing a digital signature of the  
message and the selected one of the SMPT and ESMTP protocols and by comparing the  
prepared digital signature and the received digital signature and confirming that they are  
5 identical.

198. A method as set forth in claim 192 wherein  
the server transmits the message and the digital signature to the sender without  
retaining a copy of the message and the digital signature.

199. A method as set forth in claim 196 wherein  
the server transmits to the sender the message and the digital signature and the  
identification of the sender and the identification and address of the server and the  
identification and address of the recipient without retaining any of this information.

200. A method as set forth in claim 197 wherein  
the server transmits to the sender the message and the digital signature and the  
selected one of the SMPT and ESMTP protocols without retaining any of this information.

201. A method of transmitting a message through the internet from a sender to a recipient through a server displaced from the recipient, including the steps at the server of:

transmitting to the recipient the message and an identification of the sender and an identification and address of the server and an identification and address of the recipient,

receiving from the recipient the message and the identification of the sender and an identification and address of the server and an identification and address of the recipient, and

transmitting to the sender the message and the identification of the sender and the identification and address of the server and the identification and address of the recipient.

202. A method as set forth in claim 201 wherein

the server prepares a digital signature of the message and transmits the digital signature to the sender with the message.

203. A method as set forth in claim 202 wherein

the server does not retain a copy of the message and the digital signature when it transmits the message and the digital signature to the sender.

204. A method as set forth in claim 202 wherein  
the server prepares a digital signature of the message, the identification of  
the sender, the identification and address of the server and the identification of the  
recipient and transmits the digital signature to the sender with the message.

205. A method as set forth in claim 202 wherein  
the server does not retain a copy of the message and the digital signature when it  
transmits the message and the digital signature to the sender, and  
the server prepares a digital signature of the message and of the  
identification of the sender and the identification and address of the server and the  
identification of the recipient and transmits the digital signature to the sender with the  
message.

206. A method of transmitting a message through the internet from a sender to a  
recipient through a server displaced from the recipient, including the steps at the server of:  
transmitting to the recipient the message and an identification of the sender and a  
protocol selected from a group consisting of SMPT and ESMPT protocols.  
receiving from the recipient the message and the selected one of the protocols, and  
transmitting to the sender the message and the selected one of the protocols.



207. A method as set forth in claim 206, including the steps of:  
preparing at the server a digital signature of the message, and  
transmitting the digital signature from the server to the sender with the message.

208. A method as set forth in claim 206, including the step of:  
not retaining at the server a copy of the message and the digital signature when the  
server transmits the message and the digital signature to the sender.

209. A method as set forth in claim 206, including the step of:  
preparing at the server a digital signature of the message and of the selected one  
of the protocols, and  
transmitting the digital signature from the server to the sender with the message.

210. A method as set forth in claim 207, including the steps of:  
not retaining at the server a copy of the message and the digital signature when the  
server transmits the message and the digital signature to the sender, and  
preparing at the server a digital signature of the message and of the selected one  
of the protocols, and  
transmitting the digital signature from the server to the sender with the message.